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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,520	04/06/2001	Anthony R. A. Keane	3197-000011	6142

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EXAMINER

DEBERADINIS, ROBERT L

ART UNIT PAPER NUMBER

2836

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/827,520

Applicant(s)

KEANE ET AL.

Examiner

Robert DeBeradinis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Response to Amendment***

The reply filed 8/5/03 consists of amending claims 1, 20 and remarks related to rejection of claims.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by BATSON 5,614,813.

Regarding claims 1, 20.

BATSON discloses a power generator system comprising:

a power module (12) for receiving an electrical energy input and generating an electrical energy output, the power module having a digital control input;

a sensor module (26) for monitoring the output of the power module, the sensor module having a digital sensor output and generating a digital sensor signal on the digital sensor output that varies in accordance with the electrical energy output; and

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a control module (24) having a digital measurement input for receiving the sensor signal, the control module determining parameters that vary in accordance with the electrical energy output, the control module including a digital control output connected to the digital control input, the control module generating a control signal applied to the digital control input for controlling the power module (12).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over BATSON 5,614,813.

Regarding claims 2-8.

BATSON discloses the power generating system of claim.

BATSON does not disclose a data link interconnecting at least a pair of the sensor module, the control module, the power module etc.

The Examiner takes official notice, data link interconnecting a plurality of modules via fiber optics infrared wireless etc. is well known in the art.

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It would have been obvious to one having ordinary skill in the art at the time of this invention to interconnect a plurality of modules via a communication link. The motivation would be to control a power generating system supplying power to a plurality of loads.

5. Claims 9-19, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over BATSON 5,614,813 in view of THEALL 4,375,051.

Regarding claim 9.

BATSON discloses a power generator system comprising:

a power module (12) for receiving an electrical energy input and generating an electrical energy output, the power module having a digital control input;

a sensor module (26) for monitoring the output of the power module, the sensor module having a digital sensor output and generating a digital sensor signal on the digital sensor output that varies in accordance with the electrical energy output; and

a control module (24) having a digital measurement input for receiving the sensor signal, the control module determining parameters that vary in accordance with the electrical energy output, the control module including a digital control output connected to the digital control input, the control module generating a control signal applied to the digital control input for controlling the power module (12).

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BATSON does not disclose an impedance matching network interposed between the power generator and the load, the impedance matching network including a second digital interface.

THEALL discloses a load match circuit (17) which in turn is connected via transmission line (18) to a load (column 3, lines 9-21) and a digital interface communicating with the digital bus where information is sent to a computer via the digital bus (column 4, lines 1-20).

It would have been obvious to one having ordinary skill in the art at the time of this invention to modify BATSON to include an impedance matching network interposed between the power generator and the load, the impedance matching network including a second digital interface. The motivation to provide the load matching circuit and the digital interface would be to provide a digital controlled load matching circuit, to protect the power generator, from reflected power generated by a changing load.

Regarding claims 10-19, 21-24.

BATSON in view of THEALL disclose the power delivery system of claim 9. The delivery system including digital communication between modules via a digital bus of the power delivery system.

BATSON in view of THEALL do not disclose fifth digital interface, sixth digital interface etc.

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The Examiner takes official notice that a fifth digital interface, sixth digital interface etc. is a duplication of parts and the digital communication between a plurality of modules is well known.

It would have been obvious to one having ordinary skill in the art at the time of this invention to provide the fifth digital interface, sixth digital interface etc.. The motivation would be to supply power to a plurality of loads.

### *Response to Arguments*

6. Applicant's arguments filed 8/5/03 have been fully considered but they are not persuasive. Applicant argues that BATSON fails to anticipate a power module having a digital input. The pulse width modulated switch driver (12) is a power module, it receives DC power from a DC source (output of converter 18) and supplies a regulated amount of power to the load, BATSON anticipates a sensor module (26) having a digital data output (input to microprocessor 24), BATSON anticipates a control module (microprocessor 24) having a digital data input for receiving the digital data sensor signal, a digital control data output connected to the digital data input (lines 20, 22) for controlling the power module (12).

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Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (703) 306-5857. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on (703) 308-3119. The fax phone number for this Group is (703) 308-7722.

RLD

SEPTEMBER 9, 2003

